

## SURVEYING SCOPE OF SERVICES

### Libby Asbestos Project – Emergency Response Environmental Protection Agency (EPA) – Region 8

#### 1.0 INTRODUCTION

The Environmental Engineering Division (DTS-33) of the John A. Volpe National Transportation System Center (Volpe) is providing environmental engineering and remediation support to Region 8 of the Environmental Protection Agency (EPA). Currently, Volpe is supporting EPA's Libby Asbestos Project. In particular, Volpe is providing emergency planning and sampling support for residential properties and other impacted areas located in Libby Montana, which are potentially contaminated with asbestos. As part of this effort Volpe with contractual support from CDM Federal Services has conducted sampling activities within 4 sampling sites within Libby. Various points of interest within each sampling site need to be identified with a fix location via GPS, for the purpose of identification and in order to be able return to specific sampling points in the future, as necessary.

#### 2.0 TASKS TO BE PERFORMED

The surveyor, here after referred to as the contractor, shall supply all personnel, material, equipment, and supplies necessary to complete the tasks identified within this scope.

##### 2.1 Pre-Survey Tasks

The contractor shall be responsible for obtaining and being familiar with all required equipment. The contractor shall use a Trimble 4700 model RTK (with base station rover) to obtain all GPS Fix locations.

##### 2.2 Survey Tasks

The contractor shall obtain the GPS Fix location of various points of interests present at a minimum of 4 general sampling sites, as indicated by a project representative (as identified by Volpe). The project representative will accompany the contractor throughout the survey. Points of interests shall include, but not be limited to, the following: sampling points, structures, roads/drives, property lines, and railroad lines. Within each sampling site the points of interests are all located within close proximity to each other. The contractor will also need to establish a minimum of 3 permanent waypoints (using re-bar), from which all the fix locations will be referenced. **Each waypoint shall be referenced to real world coordinates, UTM Local Zone 11.**

The 4 sampling locations requiring surveying include:

- |          |  |
|----------|--|
| Site 1 - | The former Grace Railroad Loading Station (currently known as the Raintree Nursery), located at 5000 Hwy 37, N. Libby, MT. Approximately 100 fix locations will be required. |
|----------|--|

*and/or 12 as appropriate*  
*JK*  
*12/13/96*

- Site 2 - Directly across the Kootenai River from the former Grace Railroad Loading Station. Approximately 25 fix locations will be required.
- Site 3 - Various points of interest along approximately 4.5 miles of Rainey Creek Road (off of Hwy 37, across the street from Site 1 above, Railroad Loading Station). Approximately 60 fix locations will be required.
- Site 4 - At the former Grace Export Site (currently known as the Millwork West Lumber Retail Site), located at 250 City Service Road Libby, MT. Approximately 90 fix locations will be required.

### **2.3 Post Survey Tasks**

The contractor shall process all of the survey sampling data as necessary to provide the Volpe Center with the deliverables as identified within section 4.0 below.

## **3.0 SUPPORTING INFORMATION**

### **3.1 Period of Performance**

The period of performance for this scope is from notice to proceed until December 17<sup>th</sup>, 1999.

### **3.2 Government Furnished Equipment**

No government furnished equipment shall be provided as part of this effort.

## **4.0 DELIVERABLES**

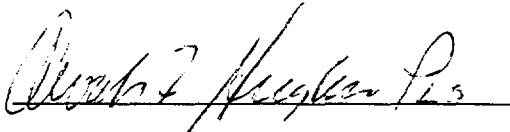
Deliverables shall be provided in both hardcopy and electronic format. The Following deliverables are required of the contractor as part of this survey effort:

- All data shall be provided referenced to UTM Local Zone 11 and/or 12 as appropriate. *me*
- A separate DXF file shall be provided for each thematic layer for all data gathered as part of this survey as well a background map of the mine site.

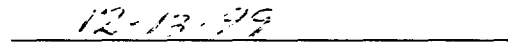
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**GOVERNMENT FURNISHED INFORMATION (GFI)**

Acknowledge by:

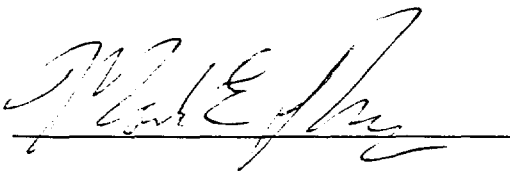


Alvah F. Hughes, PLS  
Kootenai Surveyors, Inc.

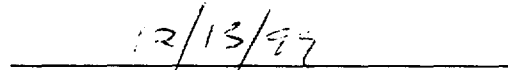


Date

Volpe On-Site Manager



Mark E. Raney  
Environmental Engineer



Date